

Western Electric Co., Incorporated,  
Engineering Dept.,  
New York,

*No Print*  
( 2 Pages) Page #1.  
Issue 1 - BT-431217.  
March 1, 1920.

## METHOD OF OPERATION LINE CIRCUIT

Intercepting - Arranged For Use As Blank Final Line - Or Lines For Denied Service -  
FULL MECHANICAL SWITCHING SYSTEM.

### GENERAL DESCRIPTION.

1. This circuit provides a means for connecting calls for blank lines or lines on which the service is denied, with an operator at the special "A" switchboard. In the event of a subscriber dialling a blank or denied number, the final selector connects with this circuit causing a lamp to light at the intercepting operator's position. The call is answered by the insertion of the plug of an answering cord in the answering jack, thereby extinguishing the line lamp.

2. This circuit may be used to function either with individual lines, ("X" wiring), or grouped blank lines, ("Y" wiring), having one or more intercepting trunk lines associated with the group. When one intercepting or blank final line is used to intercepted service on a group of lines the last line shall be connected to Fig. #1 and all the preceding lines to Fig. #2.

### DETAILED DESCRIPTION.

#### OPERATION.

#### Fig. #1 "X" Wiring.

3. When a final selector seizes the tip, ring and sleeve terminals of the line connected to this circuit, battery on the sleeve of the final circuit, (not shown), is connected to lead S, to ground through both windings of the SL-1 relay in series aiding, operating the relay, which lights the line lamp. When the plug of a cord is inserted in the answering jack, the SL relay operates, extinguishing the line lamp. When the receiver at the calling station is replaced on the switchhook, the final circuit advances and connects battery to the sleeve of this circuit. This battery prevents this circuit being selected until the plug of the cord is removed from the answering jack, at this time the SL relay releases, and this circuit is released by the final, in turn releasing the SL-1 relay, restoring the circuit to normal.

#### Fig. #1 ("A" Wiring).

4. With this arrangement, the circuit functions in the manner described above, except that the windings of the SL-1 relay is connected in parallel aiding instead of series aiding.

( 2 Pages) Page #2.  
Issue 1 - BT-431217.  
March 1, 1920.

CIRCUIT REQUIREMENTS.

	<u>OPERATE</u>	<u>NON-OPERATE</u>	<u>RELEASE</u>
E9 (SL)	Test .055 amp. Readj. .028 amp.	Test .020 amp. Readj. .022 amp.	
Special E117 D-22009 (SL-1) windings in series aiding.	Test .029 amp. Readj. .011 amp.		Test .0021 amp. Readj..0023 amp.
Windings in parallel aiding.	Test .083 amp. Readj. .030 amp.		Test .0064 amp. Readj. .0068 amp.

ENG.---WHL-RV.  
7/16/21.

CHK'D.--RAP.

APPROVED - C. L. SLUYTER, G.M.L.